

## FROM FIELD AND STUDY

**Another introduced fish species for Western Australian waters** - The gobiid fish *Acentrogobius pflaumii* (Bleeker) has recently been found to inhabit the waters of Cockburn Sound. The presence of an unrecognised goby species was first noticed in January 2004 during an ongoing informal survey of marine fauna at Woodman Point, south of Fremantle.

The goby can be easily recognised by the many iridescent blue spots and four dark blotches along its side. There is also a dark blotch on the caudal peduncle and a smaller one on the opercular plate. Males may also have a dark blotch towards the rear of the first dorsal fin.

The gobies were seen by their burrow entrances on a silty substrate at the depth of about ten metres. At least some of the burrows were shared with a species of alpheid shrimp. Each shrimp was seen to be actively pushing out substrate from within the burrow while their respective goby was standing guard nearby. Both would quickly disappear down the burrow at the slightest disturbance. When an attempt was made to collect a voucher specimen of the goby, it was discovered that some of the burrows had more than one entrance (or that the burrows were interconnected). A specimen, which is now lodged in the Western Australian Museum, was collected from a burrow system with three entrances up to forty centimetres apart.

*Acentrogobius pflaumii* is native to Japan and surrounding areas. It has previously been recorded from harbours near Sydney and Melbourne in eastern Australia, where it is thought to have been introduced via ballast waters. (Lockett, M.M and Gomon, M.F.2001. Ship mediated fish invasions in Australia: two new introductions and a consideration of two previous invasions. *Biological Invasions* 3:187-192). It has also been recently detected in New Zealand waters (Francis, M.P. 2003. Invasion of the Asian goby *Acentrogobius pflaumii* into New Zealand, with new locality records of the introduced bridled goby, *Arenigobius bifrenatus*, *New Zealand Journal of Marine and Freshwater Research*, Vol. 37:105-112). The New Zealand specimens were collected by beach seine over a "muddy substrata" in two separate harbours.

At Woodman Point, the gobies are currently restricted to a small area of silty substrate and have not been recorded from seagrass beds nearby. Further monitoring will be required to see if the current population is more widespread, and whether it is having an impact on the local fauna.

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